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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yoshihiro Ishikawa

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EXAMINER

SAM, PHIRIN

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/763,034	<b>Applicant(s)</b> ISHIKAWA ET AL.	
	<b>Examiner</b> PHIRIN SAM	<b>Art Unit</b> 2419	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 21-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 and 33 is/are allowed.
- 6) ☒ Claim(s) 21,23-29,31 and 32 is/are rejected.
- 7) ☒ Claim(s) 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/13/09</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 21, 23, 24-29, 31, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6,259,683 to Sekine et al. (hereinafter "Sekine") in view of US 2002/0181558 of Ogawa et al. (hereinafter "Ogawa").

**Regarding claim 21**, Sekine discloses an information management method for cell search in a mobile communications system (see Figs. 1-4) comprising:

(a) a capturing step of capturing, in a handover-source base station, phase difference information between said handover-source base station and a handover-destination base station (see Fig. 4, 6, element 413, col. 6, lines 64-67, col. 7, lines 1-18, col. 10, lines 49-57), the phase difference information being calculated by at least one mobile station that is communicating with

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said handover-source base station (see Fig. 4, 6, element 413, col. 6, lines 64-67, col. 7, lines 1-18, col. 10, lines 49-57);

(b) a transmitting step of transmitting the stored phase difference information to a mobile station (see Fig. 4, col. 7, lines 3-7);

Sekine does not disclose a storing step of storing, in said handover- source base station and/or its control station, the captured phase difference information and a long period spreading code. However, Ogawa discloses a storing step of storing, in said handover- source base station and/or its control station, the captured phase difference information and a long period spreading code (see Figs. 7, 8, 11, and 14, element 40, paragraphs [0073], [0077], [0079], [0090], and [0096]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a storing step of storing, in said handover- source base station and/or its control station, the captured phase difference information and a long period spreading code teaching by Ogawa with Sekine. The motivation for doing so would have been to provide to performance a cell search and/or multi-path search in a reduced interval of time read on paragraph [0016]. Therefore, it would have been obvious to combine Ogawa and Sekine to obtain the invention as specified in the claim 21.

**Regarding claim 23**, Sekine discloses a supplying step of supplying, from a control station that stores the phase difference information to said base station, the phase difference information between said base station and its neighboring base stations from among the phase difference information stored (see Fig. 2, col. 5, lines 48-65).

**Regarding claims 24 and 25**, Sekine discloses a cell search method of a mobile station (see Figs. 1 and 4) comprising:

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(a) a receiving capturing step of receiving, from a base station, phase difference information between a long period spreading code of a common control channel of said base station and a of a common control channel of a neighboring base station of said base station (see Figs. 4, 6, element 413, col. 6, lines 64-67, col. 7, lines 1-18, col. 10, lines 49-57);

Sekine does not disclose a cell search step of carrying out cell search in accordance with the received phase difference information and long period spreading code. However, Ogawa discloses a cell search step of carrying out cell search in accordance with the received phase difference information and long period spreading code (see Figs. 7, 8, 11, and 14, element 40, paragraphs [0073], [0077], [0079], [0090], and [0096]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a cell search step of carrying out cell search in accordance with the received phase difference information and long period spreading code teaching by Ogawa with Sekine. The motivation for doing so would have been to provide to performance a cell search and/or multi-path search in a reduced interval of time read on paragraph [0016]. Therefore, it would have been obvious to combine Ogawa and Sekine to obtain the invention as specified in the claims 24 and 25.

**Regarding claim 26,** Sekine discloses a base station (see Figs. 1 and 3) comprising:

(a) storing means for storing phase difference information between said base station and a neighboring base station of said base station, the phase difference information being captured from a mobile station (see Fig. 3, col. 6, lines 22-33, wherein when the base station received phase different from the mobile station, it is obvious that the base will temporarily store this phase difference before it transfers this phase difference to other base stations (neighboring base stations));

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(b) management means for managing the phase difference information stored in said storing means (see Fig. 3, col. 6, lines 34-44);

Sekine does not disclose a long period spreading code of a base station and a long period spreading code of a neighboring base station. However, Ogawa discloses a long period spreading code of a base station and a long period spreading code of a neighboring base station (see Figs. 7, 8, 11, and 14, paragraphs [0073], [0077], [0079], [0090], and [0096]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a long period spreading code of a base station and a long period spreading code of a neighboring base station teaching by Ogawa with Sekine. The motivation for doing so would have been to provide to performance a cell search and/or multi-path search in a reduced interval of time read on paragraph [0016]. Therefore, it would have been obvious to combine Ogawa and Sekine to obtain the invention as specified in the claim 26.

**Regarding claim 27**, Sekine discloses a base station (see Figs. 1 and 3) comprising:

- (a) storing means for storing phase difference information between a long period spreading code of a common control channel of said base station and a long period spreading code of a common control channel of a neighboring base station of said base station, the phase difference information being supplied from a control station of said base station (see Fig. 3, col. 6, lines 22-33, wherein when the base station received phase different from the mobile station, it is obvious that the base will temporarily store this phase difference before it transfers this phase difference to other base stations (neighboring base stations));
- (b) management means for managing the phase difference information stored in said storing means (see Fig. 3, col. 6, lines 34-44);

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Sekine does not disclose a long period spreading code of a base station and a long period spreading code of a neighboring base station. However, Ogawa discloses a long period spreading code of a base station and a long period spreading code of a neighboring base station (see Figs. 7, 8, and 11, paragraphs [0073], [0079], and [0090]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a long period spreading code of a base station and a long period spreading code of a neighboring base station teaching by Ogawa with Sekine. The motivation for doing so would have been to provide to performance a cell search and/or multi-path search in a reduced interval of time read on paragraph [0016]. Therefore, it would have been obvious to combine Ogawa and Sekine to obtain the invention as specified in the claim 27.

**Regarding claim 28**, Sekine discloses a control station (see Figs. 1 and 2) comprising:

- (a) storing means for storing phase difference information between a long period spreading code of a common control channel of a base station controlled by said control station and a long period spreading code of a common control channel of a neighboring base station of said base station, the phase difference information being captured from said base station it controls (see Fig. 2, col. 5, lines 48-54, wherein when the control station received phase different from the base station currently holding a communication channel, it is obvious that the control station MCC will temporarily store this phase difference before it transfers this phase difference to base stations);
- (b) management means for managing the phase difference information stored in said storing means (see Fig. 2, col. 5, lines 54-65);

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Sekine does not disclose a long period spreading code of a base station and a long period spreading code of a neighboring base station. However, Ogawa discloses a long period spreading code of a base station and a long period spreading code of a neighboring base station (see Figs. 7, 8, and 11, paragraphs [0073], [0079], and [0090]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a long period spreading code of a base station and a long period spreading code of a neighboring base station teaching by Ogawa with Sekine. The motivation for doing so would have been to provide to performance a cell search and/or multi-path search in a reduced interval of time read on paragraph [0016]. Therefore, it would have been obvious to combine Ogawa and Sekine to obtain the invention as specified in the claim 28.

**Regarding claim 29**, Sekine discloses a mobile station (see Figs. 1 and 4) comprising:

(a) phase difference information storing means for storing phase difference information between a long period spreading code of a common control channel of a base station and a long period spreading code of a common control channel of a neighboring base station of said base station, the phase difference information being captured from said base station (see Fig. 4, col. 2, lines 65-67, col. 3, lines 1-29, col. 6, lines 64-67, and col. 7, lines 1-18, wherein mobile station compares the phase different of the base stations, this result, of course, temporarily store before send it to the base stations);

Sekine does not disclose cell search means for carrying out cell search in accordance with the phase difference information stored in said storing means and a long period spreading code. However, Ogawa discloses a cell search means of carrying out cell search in accordance with the received phase difference information and long period spreading code (see Figs. 7, 8, 11, and 14,

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element 40, paragraphs [0073], [0077], [0079], [0090], and [0096]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine a cell search step of carrying out cell search in accordance with the received phase difference information and long period spreading code teaching by Ogawa with Sekine. The motivation for doing so would have been to provide to performance a cell search and/or multi-path search in a reduced interval of time read on paragraph [0016]. Therefore, it would have been obvious to combine Ogawa and Sekine to obtain the invention as specified in the claim 29.

**Regarding claim 31**, Sekine discloses a mobile communications system including a base station and a mobile station (see Figs. 1-4),

said base station (see Figs. 1 and 3) comprising:

(a) base station storing means for storing phase difference information between said base station and a neighboring base station of said base station, the phase difference information being captured from said mobile station (see Fig. 3, col. 6, lines 22-33, wherein when the base station received phase different from the mobile station, it is obvious that the base will temporarily store this phase difference before it transfers this phase difference to other base stations (neighboring base stations));

(b) management means for managing the phase difference information stored in said storing means (see Fig. 3, col. 6, lines 34-44);

said mobile station (see Figs. 1 and 4) comprising:

(c) mobile station storing means for storing the phase difference information captured from said base station (see Fig. 4, col. 2, lines 65-67, col. 3, lines 1-29, col. 6, lines 64-67, and col. 7,

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lines 1-18, wherein mobile station compares the phase different of the base stations, this result, of course, temporarily store before send it to the base stations);

Sekine does not disclose cell search means for carrying out cell search in accordance with the phase difference information stored in said mobile station storing means and a long period spreading code. However, Ogawa discloses cell search means for carrying out cell search in accordance with the phase difference information stored in said mobile station storing means and a long period spreading code (see Figs. 7, 8, 11, and 14, element 40, paragraphs [0073], [0077], [0079], [0090], and [0096]). At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine cell search means for carrying out cell search in accordance with the phase difference information stored in said mobile station storing means teaching by Ogawa with Sekine. The motivation for doing so would have been to provide to performance a cell search and/or multi-path search in a reduced interval of time read on paragraph [0016]. Therefore, it would have been obvious to combine Ogawa and Sekine to obtain the invention as specified in the claim 31.

**Regarding claim 32**, Sekine discloses a mobile communications system including a base station, a control station for controlling the base station, and a mobile station (see Figs. 1-4),

said control station (see Figs. 1 and 2) comprising:

- (a) control station storing means for storing phase difference information between a long period spreading code of a common control channel of said base station and a long period spreading code of a common control channel of a neighboring base station of said base station, the phase difference information being captured from said base station (see Fig. 2, col. 5, lines 48-54, wherein when the control station received phase different from the base station currently

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holding a communication channel, it is obvious that the control station MCC will temporarily store this phase difference before it transfers this phase difference to base stations);

(b) control station management means for managing the phase difference information stored in said control station storing means (see Fig. 2, col. 5, lines 54-65);

said base station (see Figs. 1 and 3) comprising:

(c) base station storing means for storing the phase difference information supplied from said control station (see Fig. 3, col. 6, lines 22-33, wherein when the base station received phase different from the mobile station, it is obvious that the base will temporarily store this phase difference before it transfers this phase difference to other base stations (neighboring base stations));

(d) base station management means for managing the phase difference information stored in said base station storing means (see Fig. 3, col. 6, lines 34-44);

said mobile station (see Figs. 1 and 4) comprising:

(e) mobile station storing means for storing the phase difference information captured from said base station (see Fig. 4, col. 2, lines 65-67, col. 3, lines 1-29, col. 6, lines 64-67, and col. 7, lines 1-18, wherein mobile station compares the phase different of the base stations, this result, of course, temporarily store before send it to the base stations);

Sekine does not disclose cell search means for carrying out cell search in accordance with the phase difference information stored in said mobile station storing means. However, Ogawa discloses cell search means for carrying out cell search in accordance with the phase difference information stored in said mobile station storing means (see Figs. 7, 8, 11, and 14, element 40, paragraphs [0073], [0077], [0079], [0090], and [0096]). At the time of the invention, it would

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have been obvious to a person of ordinary skill in the art to combine cell search means for carrying out cell search in accordance with the phase difference information stored in said mobile station storing means teaching by Ogawa with Sekine. The motivation for doing so would have been to provide to performance a cell search and/or multi-path search in a reduced interval of time read on paragraph [0016]. Therefore, it would have been obvious to combine Ogawa and Sekine to obtain the invention as specified in the claim 32.

***Allowable Subject Matter***

4. Claims 30 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. Claims 22 and 33 are allowed.

***Response to Arguments***

6. Applicant's arguments with respect to claims above have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHIRIN SAM whose telephone number is (571)272-3082. The examiner can normally be reached on Increased Flexitime Policy (IFP) Program.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edan Orgad can be reached on (571) 272 - 7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Respectfully submitted,

Date: April 10, 2009

By:           /Phirin Sam/            
Phirin Sam  
Primary Examiner  
Art Unit 2419